

UNITED STATES INFANTRY AND CAVALRY
SCHOOL.

Fort Leavenworth, Kansas, July 1, 1891.

Sir:

I have the honor to submit for the information of the Major-General commanding the-Army, the annual report of the operations of the United States Infantry and Cavalry School for the year ending June 20, 1891. This period covers the second year of the student class which entered September 1, 1889, and was graduated June 17, 1891.

I was assigned to the command of the United States Infantry and Cavalry School and the post of Fort Leavenworth, Kansas, by General Orders No. 86, Headquarters of the Army, Adjutant General's Office, of August 6, 1890. I arrived at this post August 26, and on the 28th assumed command, relieving Brigadier General A. McD. McCook, U. S. Army. The work of the school during the months of July and August, previous to my arrival, will be found specified under the heading of "department of engineering" and "department of artillery. "

Upon my arrival at the school I was informed by the late commandant that the course of study for the student class during the ensuing year had been arranged by the school staff, and that it was complete. As the course would begin in a few days, and as I was entirely new to the work, I was very glad to have it laid out for me by those whose experience would be a reasonable guarantee of its correctness. At any rate, I was not in a condition to make or suggest any changes even were it not correct. The regular

course of study commenced September 1, and continued without interruption until November 22, 1890.

DEPARTMENT OF ENGINEERING.

This department has been subjected to great embarrassment, owing to the numerous changes in the office of 'senior instructor.'

June 6, 1890, Captain J. G. D. Knight, Corps of Engineers, the head of the department, being relieved from duty 'at the school, transferred it to First Lieutenant James A. Irons, Twentieth Infantry, senior assistant instructor. June 30, Captain G. W. Davis, Fourteenth Infantry, was assigned to duty as instructor, relieving Lieutenant Irons in charge. July 25, Captain, Davis was relieved, and again Lieutenant Irons assumed the duties of the head of the department. February 4, Captain E. E. Steever, Third Cavalry, was ordered to duty as head of this department;— and Lieutenant Irons was again relieved. In less than two months Captain Steever was relieved and Lieutenant Irons again became senior instructor,

These constant changes, involving more or less change in the mode of instruction, are not conducive to the best interests of the school or student class. It is desirable that the head of a department should be reasonably permanent, . and especially in this course, which is one of the most important taught at the school. At this time the position of senior instructor is vacant, though an application for an officer to fill the vacancy will soon be made. Officers for such places are hard to get, as it is not deemed advisable to detach officers of the Corps of Engineers for such duties, . and but comparatively few others have the necessary knowledge and experience to fill such a position.

Lieutenant Irons, who has proved himself a most excellent instructor and deserves the highest com-

mentation, has been here four years, and has applied to be relieved from further duty here and return to his regiment. I regret to lose his services, but his wish deserves favorable consideration. The work of this department is substantially as follows:-for further details I respectfully refer to the report of the instructor of engineering, herewith enclosed:-During the month of July practical work in signalling and topography, work with the signal field telegraph train, construction of telegraph lines and the use of the heliograph, mounted reconnaissance, with the use of the sketching case. In September and October, field engineering, theoretical and practical, the latter consisting in laying out and constructing shelter trenches, use of intrenching tools, making gabions, fascines, etc. April and May, 1891, was devoted to theoretical instruction in building superintendence, Clark's work being used as a text-book. This is a new subject of instruction, and is regarded by instructors and students as a very valuable one. This, as yet, has not the specific sanction of the War Department. I recommend that, if it be deemed necessary, it be made part of the course of study by direct orders from the War Department. In addition to the above, during this time, instruction was imparted in photography, embracing the reproduction of maps, as well as landscape photography; also a survey of the post.

A few months after my arrival, in examining into the methods of the school and conversing with instructors and students, I became convinced that most of the causes of failure to graduate at this school were due to deficient knowledge in mathematics before coming here; that is, in algebra, geometry and trigonometry, the applications of which subjects are required at once in this department. In order to obviate this difficulty in the future as much as possible,

as soon as I received last winter the list of the student class for the term 1.891-93 I caused the secretary of the school to write to all the officers named therein who had been appointed from civil life or promoted from the Army, inquiring as to their knowledge of those subjects, stating the difficulties of the course, and asking if they desired six months' preliminary instruction therein. Answers were received from about ten, eight of whom it was thought best to ask might be ordered here March 1, 1891, for such instruction. Six of these, Second Lieutenants G. W. Ruthers Eighth Infantry, A. A. Cabaniss, Twentieth Infantry, C. E. Tayman, Twenty-fourth Infantry, H. A. Barber, First Cavalry, W. A. Campbell, Ninth Infantry, and F. S. Wild, Seventeenth Infantry, reported in accordance with orders from the War Department on that date. First Lieutenant C. B. Thompson, Fifth Infantry, and Second Lieutenant J. M. Sigworth, Tenth Infantry, were delayed by general court-martial duty or blockaded roads, and did not report until some days later. These officers were at once organized as a section and placed in charge of Second Lieutenant J. T. Haines, Fifth Cavalry, as instructor in mathematics. They have already been well instructed in algebra and geometry and will soon take up the subject of trigonometry, which will be completed before the date of beginning the regular course of the class in September.

Many changes have taken place in the list of the class since it was first sent me, and there are many in the list as now constituted who doubtless would be much benefitted could they have the instruction imparted to the officers named above. The instructor speaks highly of the results already obtained, and it remains to be seen by comparison of the future progress of the officers who have had the benefit of this preliminary course with that of those who were not

so favored whether it will be desirable to continue it hereafter.

The following recommendations of the instructor of engineering are fully concurred in by me:

(1) That a competent draughtsman be employed for the work required from the Department.

(2) That the scale used in drawing of redan be changed from 1 :1000 to 1:500.

(3) That "building superintendence" be sanctioned by the War Department as a part of the course of study.

I do not think it advisable to take up time in practicing signaling with the flag and torch, as that is required at all posts.

(4) I concur with him that no change should be made in the course of "surveying, military topography, or elementary field engineering," but none has been contemplated.

(5) I agree with him that a number of horses should be sent here for the use of student officers solely in their mounted work. Great difficulty has been found in obtaining suitable mounts for this duty: from the cavalry troops. Troop commanders are very loath to give up their horses to inexperienced riders. This matter has already been presented to the attention of the War Department. (See also recommendations on this point of instructor department of cavalry.)

Recommendations concerning other departments and generally concerning the school will be considered later.

DEPARTMENT OF MILITARY ART.

This department is under charge of Major Jacob Kline, Twenty-fourth Infantry.

During the past year there were sixty-nine recitations and twenty-three field exercises in this de-

partment, including every month during the year. The theoretical instruction was confined to "Operations of War", by Hamley, supplemented by the practical exercises mentioned above. These were as follows:

October 24, 1890, field exercise.—Advance guard opposed by small rear guard.

November 22, 1890. Attack of a battalion of four companies on an outlined position.

October 29, 1890.—Attack and defense of a position—one side marching in advance guard formation (railroad cut)—flank attack on same, with frontal attack, etc., to hold force while flanking party works to right and rear.

October 20, 1890.—Outposts.

October 23, 1890.—Attack formation of a company at war strength. Modern attack formation confined to Upton's tactics.

In all these exercises topographical work was required, and all student officers as a rule were employed. The exercise of the 22d of November was supplemented by an additional field exercise. The commanding officer was required to make disposition for an attack on different ground.

The above were repeated from time to time in order that every member of the class might be enabled to participate therein, making in all twenty-three exercises. Additional exercises were planned, but the absence of the troops owing to Indian disturbances and inclement weather in the early spring prevented their execution. Towards the close of the year each student prepared an essay upon some military subject; two of these essays were selected by the school staff as being well worthy of publication, the first on the subject of "Mounted Infantry," by Second Lieutenant J. A. Penn, jr., Thirteenth Infantry, and the second upon the subject of "A United States Army," by First Lieutenant J. B. Bachelor, jr., Twenty-fourth Infantry. These essays were also read before the school upon the graduation of the class, June 17, 1891.

DEPARTMENT OF INFANTRY.

This department, like that of military art, is under charge of Major Jacob Kline, Twenty-fourth Infantry.

During the year there were seventy-five recitations in the course of infantry, consisting almost wholly of fire tactics. This included every month from September to May inclusive, except October.

This subject, which is considered especially valuable, is studied from Mayne's work, which is very voluminous not to say verbose. It is now being revised and it is hoped that it will be ready in its new form for the use of the next class.

A number of lectures in military geography were given to the class during the year, a new **feature** which it is intended to elaborate in the near future.

I refer for further details to the report of Major' Kline, together with the examination papers **and** general questions herewith enclosed.

DEPARTMENT OF CAVALRY.

This department is under the supervision of Lieutenant-colonel George B. Sanford, Ninth Cavalry.

Studies in this course began November 10th, and continued without interruption until November 21st inclusive. November 22d a telegram was received from Headquarters Department of the Missouri directing that all the cavalry be put in readiness to take the field against Indians in the Department of Dakota. Orders were at once given and the necessary preparations made. No orders to move were then received. November 24th another telegram was received ordering the entire command to be in readiness to take the field and everything pointed toward a sudden movement. All this created much disturbance among the instructors and students at the school. No orders to move, however, came and **mat-**

ters began to quiet down, when, during the evening of December 1st, telegrams from department headquarters arrived ordering the cavalry to Dakota and two companies of infantry to Fort Riley, the latter for temporary garrison duty. This necessitated the departure of all or nearly all of the instructors in military art and law.

It was found necessary to suspend entirely recitations in the cavalry course, and as well as practicable substitute some other study for it. The minds of both instructors and students, more or less excited by the events of the day, were in but slight mood for study, and the results necessarily were not as satisfactory as desirable. All this demonstrated that instructors at the school should be selected from officers not on duty with any of the companies or troops stationed at the post; so that in case of the troops being suddenly called away, the school will not be affected.

The cavalry battalion returned to the post early on the morning of January 26, and the two companies of infantry from Fort Riley on the evening of the same day. In the meantime a new schedule of study was in operation, and it was not practicable to resume the cavalry course until February 24th, which was then continued until the end of March. Notwithstanding these interruptions the progress of the class was highly commendable, and it is thought that but little of importance was lost.

The subjects studied were horses and stables (Fitzwygram), with lectures by Veterinary Surgeon Hunter, shoeing, care of feet, disease of the foot and legs, lameness and its treatment, treatment of wounds, etc.

I would especially call attention to the recommendation of the instructor of cavalry regarding the use of troop horses by the student officers, and that a

certain number of horses be kept by the quartermaster's department for their use for mounted duty. This subject is referred to in this report under the department of engineering.

The instructor also recommends the purchase of a "papier maché model of the horse" for the use of the school, similar to the one now at the Military Academy at West Point. I concur in this recommendation, and request that authority be given to make this purchase.

For further details I refer to the report of Colonel Sanford herewith enclosed.

DEPARTMENT OF ARTILLERY.

This department is under charge of Captain Carle A. Woodruff, Second Artillery.

The course of instruction in artillery is very meager, and occupied only about 15 days during the month of August, 1890. I can see, however, no reason why more time should not have been taken during that month, provided the instructors were present, though I believe some of them were on detached service part of the time. I am satisfied that even if the course of artillery should be increased, no greater time than one month could be devoted to it without encroaching upon the time necessary to studies of more importance to infantry and cavalry officers. I therefore concur in the recommendation of Captain Woodruff, that the figure of merit of this course be reduced to 75.

DEPARTMENT OF LAW.

This department is supervised by Captain J. M. J. Sanno, 7th Infantry, and during the past year instruction therein consisted wholly of military and constitutional law, international law having been omitted from the schedule. As stated on page 294 of this report, the schedule of studies was entirely

made out before my arrival at the post, and, as stated also, I did not feel competent at that time to direct or suggest any change. Some months later, when my attention was called to the fact that international law had been omitted from the list of studies, the matter was laid before the school staff for further consideration; but it then appeared to be too late to make other changes.

In the new schedule for the coming class care will be taken that this subject has its proper consideration. Report of the instructor enclosed.

Referring to the departure of the troops at this post to take part in the Indian outbreak last winter in Dakota, I will state that in addition to the troops heretofore named as having been ordered away at that time, Company H, 7th Infantry, Captain Sanno commanding, was on December 3, 1890, ordered into the field and left for Dakota that day. Being the head of the law department, his departure badly crippled it. He did not return until February 1, 1891. During his absence the law course was conducted by 1st Lieutenant E. S. Dudley, Second Artillery, senior instructor. I cannot too highly commend his zealous efforts in this department, which were alike satisfactory to the commandant; the staff of the school, and the students under instruction.

DEPARTMENT OF MILITARY HYGIENE.

This course began October 2, 1890, and continued every other day, until November 12, twenty lectures or recitations in all, Major A. A. Woodhull, Surgeon, U. S. Army, being the instructor therein. Before the close of the course of military hygiene, Major Woodhull received orders relieving him from duty at this post and ordering him to Fort Sherman, Idaho. Though upon application he was authorized to remain until the termination of the course, yet the fact of

being so ordered away at that season (November) necessarily hurried him. The examination of the class in this study took place immediately and Surgeon Woodhull left for his new post November 25, 1890. He was relieved by Major John Brooks, Surgeon, U. S. Army, post surgeon, who has been announced as instructor military hygiene, and will take charge of the instruction of the next class in that course.

It will be noticed that part of this course, viz: "Early Aid to the Injured," for want of time was not included in the instruction of the class. Measures will be taken by the instructor of this department hereafter to fully cover this part of the course.

I desire to call attention to the recommendations of the instructor in military hygiene, in which I fully concur. I regard this study as one of the utmost importance; as it is no doubt the case that the casualties of war by the bullets of the enemy are scarcely one to ten of those by disease. The care of the health of his men is then one the most important of the duties of the officer and should be thoroughly taught him. This department should take a higher stand in the course of study here and be graded much higher. The figure of merit should be raised from 50 to 100. I also recommend that it be made a regular department of the school course and the senior instructor a member of the school staff. For further details in this course reference is made to the report of Surgeon Woodhull, herewith enclosed.

GENERAL REMARKS AND RECOMMENDATIONS.

I would respectfully call attention to the fact that the school regulations need revision in several particulars. This revision was made under the supervision of the school staff, and having received the approval of the late commandant, was forwarded to

the Adjutant General of the Army for approval. A few months after my arrival the regulations so revised were sent to me to know if the new administration of the school concurred therein. As advised at that time I did so concur, and with a few minor changes which have become desirable since I still advise that revision. No notice has as yet been received of the approval of the regulations in its revised form, and I earnestly ask that such approval be given at once, that they may be in operation with the incoming of the next class. Herewith will be found a copy of the regulations as now in force, with amendments desired inserted at their proper places. I would especially recommend that the number of departments be increased from six to seven, the department of military hygiene being added thereto, and that the senior in each department be a member of the staff. It is greatly to be desired in my opinion that the United States Infantry and Cavalry School should be recognized by Act of Congress and placed upon the same footing as the United States Military Academy at West Point and the Artillery School at Fort Monroe, and be provided for as they are. This school is becoming yearly of greater usefulness to the Army and is now looked upon by all officers of the Army who are ambitious to excel in their profession as a valuable assistance to them in their career. A great need of the school is competent instructors and a retention of them for a reasonable degree of permanency. It is desirable, therefore, that instructors be assigned by orders from the War Department, and not selected from officers casually at the post with troops, and as far as possible they should be from graduates of the school.

I concur in the recommendation of several of the instructors, that at examinations the instructor and assistants in the department be constituted a com-

mittee to mark the student upon his recitation, and then that the marks be submitted to the staff for consideration. As it is now, the marks are given by the heads of all departments only, some of whom may be only imperfectly conversant with the subject.

It is further recommended that there be held a semi-annual examination in January of each year upon the studies of the past halfyearly course. There are many text-books, and if the examination in all takes place in June, a number would have to be hurriedly reviewed and much time taken up thereby. In connection with this an officer unable to appear for examination at the time specified on account of illness or other necessary cause should be required to stand his examination as soon as he returns to duty. It is further recommended that when an officer is found deficient in his course at any examination, he be at once returned to his regiment.

It is recommended that officers detailed for the course of study at the school be taken sufficiently low on the regimental list to insure their completing the course before receiving their promotion to a captaincy. Several in the incoming class will in all probability receive their promotion before completing the course. This will generally have the effect of receiving young men whose minds are still fresh from study and who are better fitted to undergo the mental strain imposed upon them during the two years of study. The result will be more satisfactory to the student and the benefit much greater to the government.

It is thought that 35 years be the maximum age of an officer detailed for the course of study. If his habits have been studious up to this age he will continue in the same strain and acquire professional knowledge. On the contrary, if he has not kept his mind active with study, it is hardly probable that he will or can keep pace at the school with younger men.

Numerous examples at the school have shown this to be a fact.

On October 20, 1890, the building formerly used as headquarters Department of the Missouri having been put in condition for the purpose, an order was issued directing that all recitations of the school class beginning November 1 take place therein. It is admirably adapted for the purpose requiring but the removal of two temporary partitions to make section rooms ample and large. The school library was also transferred to this building, as also the offices of the commandant, the secretary of the school, and the heads of the departments of military art and infantry, cavalry and engineering. There are still other rooms available when required.

The old academic building has been repaired and occupied as the administration building for the post of Fort Leavenworth.

On the 25th of October, 1890, application was made by letter to the late General Sherman to allow the use of his name to designate the new school building. This was thought to be especially appropriate, as it was by General Sherman's order that the United States Infantry and Cavalry School was established in 1881.

General Sherman most cordially consented, provided it met with the approval of the honorable Secretary of War. Such approval having been given by letter dated November 10, 1890, it was then announced in orders that the official name of the academic building of the United States Infantry and Cavalry School should be thereafter "Sherman Hall."

On June 1st, last, the Board of Visitors to the school selected by the Major-General commanding the Army reported in accordance with the order appointing them. It was my intention to tender to the board the compliment of a review of the entire command,

and orders were issued accordingly. A heavy rain storm, however, necessarily caused the postponement for one week. On the 2d of June the examination of the class began and continued daily, Sundays excepted, until the 15th. The members of the board were constant in their attendance upon the examination, and have expressed themselves well pleased with the course and the progress of the student class.

Every member of the class was found proficient; Second Lieutenant W. A. Holbrock, First Cavalry; First Lieutenant Charles H. Barth, Twelfth Infantry, and First Lieutenant Thomas Cruse, Sixth Cavalry, graduating numbers 1, 2, and 3 respectively, and are entitled to be carried on the Army Register as honor graduates of the United States Infantry and Cavalry School.

Second Lieutenant George A. Detchmندی, Sixth Infantry, and Second Lieutenant George E. French, Fourth Infantry, having to be examined in certain studies in which they had been found deficient in June, 1890, were given one week longer for that purpose. They were so examined and were declared by the school staff proficient.

June 17 the student class, together with the Board of Visitors, the commandant, and instructors, also a large audience of ladies and gentlemen, assembled in the post chapel, where, after the reading of professional essays by two of the student officers heretofore referred to and an address to the graduates by the commandant, each student, with the exception of Lieutenants Detchmندی and French, received his diploma. The two latter received their diplomas a few days later upon the termination of their final examination.

I beg leave to call attention to the fact that every member of this class has graduated and received the

authorized diploma, the only instance in the history of the school.

In conclusion I desire to add my testimony to that of many others before me, of the inestimable value of this institution to every young officer of the U. S. Army who may be enabled to secure the benefit of its instruction. Every infantry and cavalry officer should pass through its course, and to that end, as soon as quarters can be provided, two from each regiment should be sent here instead of one, as now, and a class graduated every year.

I desire to express here my acknowledgment of the cordial support and assistance rendered me by the heads of departments as well as their assistants, and also to Lieutenant Scott, First Cavalry, the secretary of the school, who has been untiring in his exertions to advance the interests of the school.

Very respectfully,

your obedient servant,

E. F. TOWNSEND,

Colonel Twelfth Infantry, Commandant.

The Adjutant General, U. S. Army,

Washington, D. C.

For Remarks on Marking Sheet
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